******* CONFIDENTIAL PREDECISIONAL DOCUMENT *******

SUMMARY SCORESHEET
FOR COMPUTING PROJECTED HRS SCORE

SITE NAME: Recycling Place

CITY, COUNTY: Mesa, Maricopa County

EPA ID #: AZ0001039270 **EVALUATOR:** Janet Bollmann

PROGRAM ACCOUNT #: unknown **DATE:** December 2, 1995

Lat/Long: 33 23' 40"N/111 49' 05" W **T/R/S:** T1N R5E,S27,dcc

THIS SCORESHEET IS FOR A: **PA** X **SSI** _____ **LSI** _____

SIRe_____ **PA Redo**_____ **Other (Specify)**_____

RCRA STATUS (check all that apply):

_____Generator _____Small Quantity Generator _____Transporter _____ TSDF

X Not listed in RCRA Database as of (date of printout) 9/7/95

STATE SUPERFUND STATUS:

_____ BEP (date) _____ _____ WQARF (date) 2/27/95

X No State Superfund Status (date) 12/1995

	S Pathway	S^2 Pathway
Groundwater Migration Pathway Score (S_{gw})	2.95	8.68
Surface Water Migration Pathway Score (S_{sw})	*	
Soil Exposure Pathway Score (S_s)	*	
Air Migration Pathway Score (S_a)	*	
$S^2_{gw} + S^2_{sw} + S^2_s + S^2_a$		8.68
$(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$	XXXXXXXXXX	2.17
$\sqrt{(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4}$	XXXXXXXXXX XXXXXXXXXX	1.47

* Pathways not assigned a score (explain):
* Sw Nearest surface water is the Tempe Canal which is banked and elevated to prevent stormwater runoff.Ss Site is completely fenced and approximately half of site is paved. Sa No residents, schools, or day care centers on or within 200 feet of the site.

GROUNDWATER MIGRATION PATHWAY SCORESHEET

Factor Categories and Factors

	Maximum Value	Projected Score	Rationale	Date Qual.
Likelihood of Release				
1. Observed Release	550	0	1	H
2. Potential to Release				
2a. Containment	10	9	2	H
2b. Net Precipitation	10	0	3	H
2c. Depth to Aquifer	5	3	4	
2d. Travel Time	35	15	5	
2e. Potential to Release [(Lines 2a x (2b+2c+2d)]	500	162		
3. Likelihood of Release (Higher of lines 1 or 2e)	550	162		
Waste Characteristics				
4. Toxicity/Mobility	a	1000	6	H
5. Hazardous Waste Quantity	a	10	7	E
6. Waste Characteristics (lines 4 x 5, then use Table 2-7)	100	6	8	H
Targets				
7. Nearest Well	50	18	9	E
8. Population				
8a. Level I Concentrations	b	0		
8b. Level II Concentrations	b	0		
8c. Potential Contamination	b	227.1	10	E
8d. Population (lines 8a+8b+8c)	b	227.1		
9. Resources	5	5	11	H
10. Wellhead Protection Area	20	0	12	H
11. Targets (lines 7+8+9+10)	b	250.1		
Likelihood of Release				
12. Aquifer Score [(Lines 3 x 6 x 11)/82,500][c]	100	2.95		
Groundwater Migration Pathway Score				
13. Pathway Score (Sgw), (highest value from line 12 for all aquifers evaluated)	100	2.95[c]		

a Maximum value applies to waste characteristics category.
b Maximum value not applicable
c Do not round to the nearest integer.
d Use additional tables

Aquifer Evaluated Interconnected

GROUNDWATER PATHWAY CALCULATIONS

8. **Population**

Actual Contamination

Potential Contamination

Distance (Miles)	Total Number of Wells Within Distance Ring	Total Population Served by Wells Within Distance	Distance-Weighted Population Values "Other Than Karst" (Table 3-12) Ring (A)
0 to 1/4	0	0	0
>1/4 to 1/2	0	0	0
>1/2 to 1	1	1309	523
>1 to 2	7	3927	939
>2 to 3	0	5236	678
>3 to 4	0	1309	131
		Sum (A)	2271

Potential Contamination = $\frac{\text{Sum (A)}}{10}$ = 227.1

Aquifer Evaluated Interconnected

HRS RATIONALE
RECYCLING PLACE

1. An observed release cannot be established since no direct observation was made and there is no chemical analysis of groundwater samples from an aquifer in relation to this site. A monitor well which is located approximately ½ mile up gradient of the site did have VOC detects; however, the file in connection with this monitor well indicates that attribution to the RP site is not merited. A value of 0 was assigned for observed release from page 51595 of the HRS Manual. (1,2)

2. Hazardous substances (lead and sulfuric acid in batteries) are stored inside a building on an essentially impervious base. There is no liquids collection and removal system. Therefore, a value of 9 for containment was assigned from Table 3-2, page 51597 of the HRS Manual. (1,2)

3. A value of 0 for net precipitation was assigned from Figure 3-2, page 51598 of the HRS Manual. (1)

4. The depth to water is about 200 feet in the vicinity of the site. A value of 3 for depth to aquifer was assigned from Table 3-5, page 51600 of the HRS Manual. (1,3)

5. Well logs and soil borings from the South Mesa WQARF Project Area indicated that the unsaturated zone overlying the aquifer consisted of two strata. The uppermost stratum consisted of firm to very stiff, brown clay and sandy clay with variable amounts of gravel, and ranged in thickness from 10 to 63 feet. The hydraulic conductivity of these sediments is estimated to be 10^{-5} to 10^{-7} cm/sec. A value of 15 for travel time was assigned from Table 3-7, page 51601 of the HRS Manual. (1)

6. Recycling Place operates as a transfer station. Approximately 30 batteries per week are stored on site. Batteries contain sulfuric acid and lead. Table 1, the Toxicity/Mobility Table, presents the toxicity and mobility values obtained from the Superfund Chemical Data Matrix (SCDM). The highest toxicity/mobility value is 1000. (1,2,4 5)

Table 1: Toxicity/Mobility Table

Hazardous Substance	Toxicity	Mobility	Toxicity/Mobility Value
Lead	10,000	0.01	100
Sulfuric acid	1,000	1	1000

7. The hazardous constituent quantity can not adequately be determined. Therefore, a default value of 10 was assigned from page 51592 of the HRS Manual. (1,2,5)

8. A value of 6 was assigned from Table 2-7, page 51592 of the HRS Manual. (1)

9. The nearest well to the site is City of Mesa Well # 22, located between ½ - 1 mile from the site. Therefore, a value of 18 was assigned from Table 3-11, page 51603 of the HRS Manual. (1)

10. There are 33 wells in the City of Mesa drinking water system. Thirteen of these wells are within 4 miles of the site. Groundwater and surface water are blended with surface water contributing greater than 40% to the drinking water system. Given that groundwater only provides 15% of the water that goes into the drinking water system, Bechtel has directed ADEQ to average the population served by each water system. There are 288,091 people served by this drinking water system. The public supply wells and associated populations are listed in Table 2. (3,6)

11. Wells within 4 miles of the site are used for irrigation. (3)

12. There are no wellhead protection areas designated in EPA Region 9.

REFERENCES

1. Federal Register, Vol. 55, No. 241, December 1990, Book 2, 40CFR Part 300, pages 51532- 51667.

2. "Site Reconnaissance Interview and Observations Report," Janet Bollmann, ADEQ Preremedial Unit; Mary Hessler, ADEQ Preremedial Unit. October 24, 1995.

3. Printout, Arizona Department of Wtaer Resources Groundwater Database, February 10, 1995.

4. Superfund Chemical Data Matrix, June, 1994.

5. Preliminary Assessment Questionnaire, Recycling PLace. July 26, 1995.

6. 1994 Annual Water Withdrawal and Use Report - Provider Summary, Prepared by: City of Mesa, Prepared for: Arizona Department of Water Resources, March 31, 1995.